NORTH PACIFIC OCEAN, NOVEMBER 1934

By WILLIS E. HURD

Atmospheric pressure.—The dominant average pressure conditions over the North Pacific Ocean during November 1934 consisted, as in the previous month, of a deep Aleutian cyclone covering much of higher latitudes, but central in the neighborhood of the Gulf and Peninsula of Alaska (Kodiak 29.42 inches); and the usual middle-latitude anticyclone, central west of California, but extending in a wide belt westward to the continental anticyclone in middle Asiatic waters.

Along the coast region from the central Aleutians eastward to Juneau and thence southward to the State of Washington, pressures were abnormally low, as they were also in midocean from the Aleutians southward to Midway Island. Near normal pressures prevailed between the Hawaiian Islands and the American mainland from California southward.

TABLE 1.—*Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, November 1934 at selected stations*

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	*Inch*	*Inches*		*Inches*	
Point Barrow	30.01	+0.02	30.46	14	29.30	5
Dutch Harbor	29.51	−.08	30.14	11	28.74	16
St. Paul	29.53	−.06	30.26	10,11	28.82	17
Kodiak	29.42	−.14	29.72	20	29.00	1
Juneau	29.63	−.13	29.99	11	29.12	1
Tatoosh Island	29.85	−.12	30.29	29	29.26	2
San Francisco	30.10	+.01	30.34	28	29.72	18
Mazatlan	29.91	+.02	29.96	11,19	29.84	3,8,20
Honolulu	30.03	.00	30.14	16	29.82	28
Midway Island	30.00	−.08	30.34	28	29.76	3,4
Guam	29.88	+.02	30.00	15	29.72	10,30
Manila	29.81	−.02	29.92	8,11	29.50	14,29
Hong Kong	30.02	------	30.14	21	29.87	17
Naha	30.07	+.09	30.22	28	29.82	6
Chichishima	30.05	+.07	30.22	29	29.82	7
Nemuro	29.84	------	30.40	4,24	29.30	27

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departures are computed from best available normals related to time of observation.

Cyclones and gales.—Cyclonic activity was almost uninterrupted throughout the Aleutian region during November. This was especially true of southern Alaskan waters where, at Kodiak, the highest pressure of the month was only 29.72 inches.

Heavy storminess for this region, however, as also for practically all parts of the ocean, appears to have been less widespread and intense than during the preceding October.

During the early part of the month—from the 1st to 5th—scattered gales of force 8–9 occurred along much of the length of the upper steamship routes. In the Far East they were the result of a moderate cyclone in Japanese waters. In the higher American coast region they were due to a deep and extensive disturbance of the Aleutian type, the influence of which extended as far southward as the Oregon coast. Gales on the 4th near 40° N., 130°–140° W., rose in intensity to force 10.

On November 8 a cyclone secondary to the principal Aleutian storm gathered in a trough of low pressure that extended as far equatorward as the latitude of the Hawaiian Islands. By the 9th it had developed the force of a strong gale (9), and by the 10th, central near 42°–43° N., 142° W., it had deepened to about 28.75 inches, and was causing southwesterly gales of force 10 over the area embraced approximately between 38°–45° N., 135°–150° W. About noon of the 10th the British motorship *Athelchief*, in 39°31′ N., 147°31′ W., according to a special report, was experiencing a gale of force 11, WNW., and at 4 p. m. had entered a belt of wind, also WNW., of hurricane velocity. This is the maximum wind force thus far reported on the North Pacific for the month. The storm abated in intensity as it moved northward on the 11th, and by the 12th had entered the low-pressure region of the month in south-Alaskan waters.

Following this storm, which may be considered the major extratropical disturbance of the month, widely scattered gales, mostly of fresh to strong force, occurred in several localities on the 14th to 16th.

On the 22d–24th, during an intensification of the Aleutian cyclone in middle longitudes, the American S. S. *President Jackson* reported easterly changing to westerly gales, highest force 10, on the 23d; lowest pressure 28.50, on the 22d, in 50° N., 167½° W. Fresh westerly gales accompanied this disturbance until the 26th, reaching as far eastward on this date as 137° W., in 52° north latitude.

On the 27th and 28th a storm, central over northern Japan and the Kuril Islands, caused gales in the vicinity. Stormy conditions continued to the eastward on the 29th, with the Japanese motorship *San Diego Maru* reporting a force of 10, SSW., with a low barometer of 28.89 inches, near 42° N., 155° E.

During the 28th to 30th a depression formed over the Hawaiian Islands. On all 3 days northeasterly gales of force 8 to 9 occurred as a result within the area 24°–31° N., 160°–170° W.

Typhoons.—Two typhoons of some intensity crossed the Philippine Islands in November. One appears to have originated near Yap on the 12th, and to have entered the China Sea on the 15th, after a passage of the islands near Manila on the previous day. The other originated on or about the 25th, east of the Marianas, crossed the Philippines on the 29th, and entered the China Sea on the 30th.

An account of these storms, written by the Rev. Fr. Bernard F. Doucette, S. J., of the Weather Bureau at Manila, will appear in the December issue of the REVIEW.

Tehuantepecers.—In the Gulf of Tehuantepec, Mexico, gales of norther type were reported on the 12th, 17th, 18th, and 22d to 24th. The heaviest gale was that of the 23d–24th, of force 9, from the northeast.

Fog.—Fog was observed on 2 days off the coast of Lower California; on 10 days off California; and on 3 days off the Oregon and Washington coasts. Scattered fog occurred on a few days elsewhere along the northern and middle steamship routes, with the area of greatest frequency, where it was encountered on the 7th to 11th, about midway between the western Aleutians and Japan.

SEA-SURFACE TEMPERATURE SUMMARY FOR THE YUCATAN CHANNEL, 1912-33

By GILES SLOCUM

The monthly mean sea-surface temperatures in the Yucatan Channel for the period, January 1912, to December 1933, inclusive, are given in the accompanying table. There are 6 months, as noted in the table, for which no observational data are available. The observations of sea-surface temperature for the years, 1913 to 1919, inclusive, were few in number, and the average temperatures for this period are therefore given to whole degrees. The mean temperatures for the balance of the 22-year period are given to tenths of a degree.

The area from which these temperature observations were taken embraces five 1° squares, namely: Between 21° N. and 22° N., the two 1° squares between 85° W. and 87° W.; between 22° N. and 23° N., the three 1° squares between 84° W. and 87° W.

TABLE 1.—*Monthly and annual mean sea-surface temperatures in the Yucatan Channel, 1912 to 1933 inclusive*

Year [1]	Total number of observations for the year	January	February	March	April	May	June	July	August	September	October	November	December	Annual [2]
1912	137	78.9	75.9	77.9	79.8	81.2	83.3	83.2	83.2	83.0	81.6	77.2	79.3	80.4
1913	77	78	(3)	78	78	77	81	82	82	83	82	79	78	[4]79.5
1914	51	76	78	77	78	81	82	84	84	84	(3)	79	79	[4]80.4
1915	52	79	78	78	77	81	82	85	83	87	82	82	80	81.0
1916	43	77	77	77	79	80	84	83	83	81	83	80	78	80.2
1917	47	77	76	78	78	80	80	83	85	(3)	82	(3)	76	[4]79.9
1918	25	76	78	79	(3)	78	83	81	82	85	84	77	(3)	[4]79.9
1919	48	77	77	78	78	82	84	83	84	83	83	82	78	80.7
1920	236	77.3	76.8	77.5	78.8	80.8	81.4	82.2	82.4	82.2	81.5	79.6	79.7	80.0
1921	242	75.8	75.8	77.6	78.4	78.3	80.8	81.2	82.2	82.1	80.9	80.1	78.5	79.3
1922	219	77.5	76.9	78.1	78.8	79.5	80.9	81.3	81.9	82.1	82.3	80.4	79.1	79.9
1923	240	77.5	77.8	78.3	79.1	80.1	80.8	82.4	83.5	82.7	81.8	79.1	77.8	80.1
1924	243	77.3	75.2	76.5	78.4	80.7	83.2	83.6	84.2	83.9	81.7	79.7	78.5	80.2
1925	360	78.6	77.2	78.4	78.0	80.2	81.7	82.4	83.2	83.1	82.5	80.6	79.1	80.4
1926	415	77.7	78.0	76.6	79.2	80.7	81.5	83.0	83.5	83.2	83.1	80.5	79.5	80.5
1927	535	77.7	77.3	78.1	79.4	80.7	82.6	82.9	83.6	83.8	82.6	81.0	78.4	80.7
1928	607	76.8	77.8	77.5	78.5	79.5	82.1	82.8	83.7	83.0	83.0	80.9	78.9	80.4
1929	599	77.4	78.7	78.7	79.7	80.0	81.3	82.3	83.0	82.7	81.7	80.3	78.8	80.4
1930	640	78.3	77.5	77.4	78.3	80.7	81.7	82.9	84.3	84.1	82.6	80.6	78.7	80.6
1931	599	78.7	77.3	77.5	77.6	81.0	82.8	83.4	84.1	84.1	82.5	80.5	80.0	80.8
1932	516	79.2	79.3	78.5	78.5	80.4	82.3	83.5	84.4	84.5	83.5	80.8	78.6	81.1
1933	409	78.2	78.7	78.2	80.1	80.5	81.7	83.1	83.5	83.3	82.3	80.6	78.5	80.7
Number of years' record		22	21	22	21	22	22	22	22	21	21	21	21	22
Mean (1912-33) [2]		77.6	77.3	77.8	78.6	80.1	82.0	82.7	83.3	83.4	82.3	80.0	78.7	[4]80.3

[1] Values for 1913 to 1919 inclusive are given to whole degrees, instead of to tenths because of paucity of data.
[2] Computed with monthly values figured to 1 decimal place, and, therefore, not exact means of the figures given here.
[3] No data.
[4] Interpolated values are used for missing months.